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REMARKS

Claims 1-30 are currently pending in the subject application and are presently under consideration. Claims 1, 7, 17, 21, 25, 29, and 30 have been amended herein. A listing of all pending claims is found at pages 2-8 of this Reply.

Applicant's representative notes with appreciation the Examiner's indication that claims 7, 10-16, 21, 24, and 29 would be allowable if rewritten in independent form. The subject independent claims have been amended herein to set forth aspects that the Examiner has indicated are allowable, and as such do not require further search by the Examiner. Accordingly, the subject claims are presently believed to be in condition for allowance.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-6, 8, 9, 17-20, 22, 23, 25-28, and 30 Under 35 U.S.C. §102(b)

Claims 1-6, 8, 9, 17-20, 22, 23, 25-28, and 30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Shay (U.S. 5,900,886). This rejection should be withdrawn for at least the following reasons. Shay does not describe each and every aspect set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002); *See Verdegaaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d

The present invention relates to the field of video displays and more particularly to improved methods and apparatus for video underflow detection in a raster engine. Independent claim 1 has been amended to recite, "a control logic system, associated with the FIFO memory, that provides an underflow indication according to the first input and output counter values; *wherein the underflow signal indicates an existing underflow*

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condition when the first input and output counter values are equal for at least two cycles of a host clock.” Independent claims 17, 25, and 30 have been amended to set forth similar aspects. Such aspects were previously recited in dependent claims indicated by the Examiner as being allowable. Additionally, support for the subject amendments can be found in the specification: for example, “The raster engine comprises an underflow detection system, which may provide an *indication of current or anticipated underflow conditions*, which may be provided to a system processor or other device for taking some steps toward remedying the cause of the underflow.” (Page 3, lines 13-16.) The raster engine of the claimed invention can “provide an *indication* to a host processor that the raster engine is *underflowing or about to underflow, or that a lockup condition exists* in the raster engine. Input and output counters in the raster engine first in first out (FIFO) memory system, which interface the host bus with the raster engine video systems, are read by an *underflow detection system* to provide an *underflow indication according to the counter values*. The underflow detection and indication system of the claimed invention minimizes or reduces undesirable visual effects associated with a starved or empty raster engine, and *allows remedial and/or notification measures to be taken in a computer system employing the raster engine.*” (See e.g., page 3, lines 21-30.) Finally, “... where the counters are of equal value, the logic system may determine and provide an indication (e.g., a video underflow interrupt signal) that an underflow condition exists.” (Page 4, lines 23-25.) Shay does not disclose the aspect of an *underflow indication is based on equal FIFO counter values extant for a minimum of two host clock cycles* as in applicant’s claimed invention.

Shay is directed to a display controller that accesses external memory to retrieve gray scale modulation data. As stated by the Examiner in the Office Action dated August 20, 2004, Shay fails to disclose or render obvious the aspect of an underflow signal that indicates an existing overflow condition when first input and output counter values are equal for at least two cycles of a host clock, let alone an underflow signal that indicates an anticipated underflow condition when input and output counter values are less than or equal to a threshold value for at least two cycles of a host clock.

In view of the above, it is readily apparent that Shay fails to anticipate applicant’s invention as recited in amended independent claims 1, 17, 25, and 30 (and claims 2-6, 8,

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9, 18-20, 22, 23, and 26-28, which depend respectively there from). Therefore, this rejection should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP199USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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